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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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7590 09/21/2006  
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EXAMINER

KAPLAN, HAL IRA

ART UNIT PAPER NUMBER

2836

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/670,403

Applicant(s)

VOLL ET AL.

Examiner

Hal I. Kaplan

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-36 is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-12 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 6/30/06, 8/21/06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

The Examiner wished to thank the Applicant for his time and courtesies extended in the interview on August 22, 2006. Receipt of the International Search Report dated August 21, 2006, is acknowledged.

#### ***Drawings***

1. The drawings were received on June 30, 2006. These drawings are accepted.

#### ***Information Disclosure Statement***

2. The supplemental information disclosure statements (IDS) submitted on June 30, 2006 and August 21, 2006, have been received. The submissions are in compliance with the provisions of 37 CFR 1.98(a)(2). Accordingly, the supplemental information disclosure statements have been considered by the examiner.

#### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 3, 10, and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by the US patent of Bakka et al. (7,060,906).

As to claim 1, Bakka, drawn to an integrated communications and power system,

Art Unit: 2836

discloses a distance extender comprising: an electrical cable (8-11) electrically coupled between a first device and a second device and comprising: a first end (1); a second end (2); and a plurality of wires (8-11) extending between the first end (1) and the second end (2); a first subsystem (1,3,12) electrically coupled to the first end of the electrical cable (8-11) and to the first device; the first subsystem (1,3,12) including a voltage boost circuit (3); and a second subsystem (2,4,12) electrically coupled to the second end (2) of the electrical cable and to the second device, wherein: the first device or the second device generates a data signal and the first device provides an electrical power signal; the plurality of wires (8-11) includes a first wire (8); and the data signal and the electrical power signal are simultaneously transmitted between the first device and the second device over the first wire (8) (see column 2, lines 50-63; column 3, lines 32-38 and 42-45; and Figure 1).

As to claim 3, the first wire (8) forms a portion of a first wire pair (8,9); and the data signal and the electrical power signal are simultaneously transmitted between the first device and the second device over the first wire pair (8,9) (see column 2, lines 55-57 and column 3, lines 32-38 and 42-45).

As to claim 10, power to operate at least a portion of the second device is provided only by the electrical power signal (see column 3, lines 32-38 and 42-45).

As to claim 11, the first subsystem (1,3,12) comprises a filter circuit (12) (see column 2, lines 57-58).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 2 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bakka in view of the US patent application publication of Schneider et al. (2002/0038334).

As to claim 2, Bakka discloses all of the claimed features, as set forth above, except for the data signal comprising mouse or keyboard data. Schneider, drawn to a method and system for intelligently controlling a remotely located computer, discloses, in Figure 1A, an electrical cable electrically coupled between a first device (20) and a second device (120,122,124) and comprising: a first end and a second end (see Figure 1A); a first subsystem (50) electrically coupled to the first end of the electrical cable and the first device (20) (see paragraph 31, lines 1-4); and a second subsystem (12) electrically coupled to the second end of the electrical cable and to the second device (120,122,124), wherein: the first device or the second device generates a data signal, and the data signal is transmitted between the first device (20) and the second device (120,122,124) (see paragraph 35, lines 8-11 and paragraph 36, lines 6-8); wherein the data signal comprises at least one of mouse data and keyboard data and is transmitted from the first device (20) to the second device (120,122,124) and from the second device (120,122,124) to the first device (20) (see paragraph 35, lines 8-11 and paragraph 36, lines 6-8). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to use the distance extender of Bakka in a computer system like that of Schneider, using the computer's internal power supply instead of the distribution substation and the cable as the distribution line, because only one cable would be needed to transmit both data and electrical power instead of two.

As to claim 4, Schneider teaches a switch (74a) electrically coupled between the first device (20) and the second device (120,122,124) (see paragraph 25, lines 14-15; paragraph 31, lines 1-4; and Figure 1A).

As to claim 5, the switch (74a) of Schneider is a keyboard, video, and mouse switch (see paragraph 34, lines 1-3 and Figures 1A and 1B).

As to claim 6, the switch (74a) of Schneider is electrically coupled between the first device (20) and the first subsystem (50) (see Figure 1A).

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bakka in view of Schneider, and further in view of the US patent application publication of King et al. (2003/0131127).

As to claim 7, Bakka in view of Schneider teach all of the claimed features, as set forth above, except for the switch being electrically coupled between the second subsystem and the second device. King, drawn to a KVM video & OSD switch, discloses, in Figure 1, a KVM switch (12), electrically coupled directly to a keyboard, video monitor, and mouse (see paragraph 20, lines 5-9 and paragraph 23, lines 1-2). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to build the device of Bakka in view of Schneider, with the switch electrically coupled directly to the keyboard, video monitor, and mouse (second device) and therefore between the second device and the second subsystem, as taught by King, in order to more rapidly and efficiently switch between operator control center and remote computer data for display on the operator control center video monitor.

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bakka in view of the US patent of Clark (7,015,397).

As to claim 9, Bakka discloses all of the claimed features, as set forth above,

except for the cable comprising four unshielded twisted wire pairs. Clark, drawn to multi-pair communication cable using different twist lay lengths and pair proximity control, discloses four unshielded twisted wire pairs (40,42,44,46); wherein the first wire (40) is a portion of one of the four unshielded twisted pairs (40) (see column 3, lines 39-43 and Figure 2a). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to build the device of Bakka with the cable of Clark, in order to more reliably meet the Category 5 or 6 performance standards.

11. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bakka in view of the US patent of Zamat et al. (5,983,085).

As to claim 12, Bakka discloses all of the claimed features, as set forth above, except for the second subsystem comprising a voltage conversion circuit and an attenuation compensation circuit. Zamat, drawn to a method and apparatus that compensates for output power variations in a transmitter by using scaling factors to scale the baseband input signal, discloses, in Figures 1, a transceiver comprising a voltage conversion circuit (12) and an attenuation compensation circuit (20) (see column 3, lines 7-9 and column 4, lines 17-28 and 32-37). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to build the device of Bakka using the transceiver of Zamat as the second subsystem, in order to reduce cost and use fewer components.

***Allowable Subject Matter***

12. Claims 13-36 allowed.



13. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. The following is an examiner's statement of reasons for allowance:

Claims 13-27 are allowed because none of the prior art of record discloses or suggests the generation and transmission of a video signal, in combination with the remaining claimed features.

Claims 28-35 are allowed because none of the prior art of record discloses or suggests the step of modulating the data signal, in combination with the remaining claimed features.

Claim 36 is allowed because none of the prior art of record discloses or suggests the first subsystem including a pre-emphasis circuit, in combination with the remaining claimed features.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

15. The following is a statement of reasons for the indication of allowable subject matter:

Claim 8 contains allowable subject matter because none of the prior art of record discloses or suggests third and fourth subsystems, in combination with all of the remaining claimed features.

***Response to Arguments***

16. Applicant's arguments, see Remarks, filed June 30, 2006, with respect to the objections and rejections of claims 8, 22, and 27 under 35 U.S.C. 112, have been fully considered and are persuasive. The objections and rejections of claims 8, 22, and 27 under 35 U.S.C. 112 have been withdrawn.

17. Applicant's arguments with respect to claims 1-7, 9-12, 23-26, and 28-35 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hal I. Kaplan whose telephone number is 571-272-8587. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 571-272-2800 x36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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